UTILIZATION OF SICK LEAVE BENEFITS IN IOWA PUBLIC SCHOOLS IN RELATION TO ACCUMULATION LEVELS ALLOWED

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An Abstract of a Dissertation By
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The problem. The problem of this study was to determine if a relationship existed between sick leave utilization by professional staff members in Iowa public school districts and the number of sick leave days allowed to accumulate. Two other factors, size of district and average teacher's salary, were selected as covariates because of their relationship to the dependent variable.

Procedure. The population of this study was the 350 Iowa public school districts who operated under a collective bargaining agreement during the 1982-83 academic year. Four main variables were established for purposes of analysis. Data on each of the four variables, relating to the 1982-83 academic year, were obtained for 336 school districts which equaled a 96 percent participation level.

Frequency distributions, means, standard deviations, ranges, Pearson product moment correlations, and analysis of covariance were statistical procedures employed in this study. The analysis of covariance was utilized to test the null hypothesis.

Findings. After controlling for the variables, average teacher's salary and size of district, the major independent variable, number of sick leave days allowed to accumulate, had no affect on the average number of sick leave days utilized per teacher. The only relationship found was a positive one between size of district and average number of sick leave days used per teacher.

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CHAPTER ONE

Introduction

The evolution of statutory sick leave benefits in education developed during and immediately after World War II and appeared to be an inducement to retain staff during a period of extreme shortage of qualified personnel.[1]

In May of 1942 New Jersey was the first state to enact legislation which required educational institutions to grant a specific number of sick leave days to each professional employee annually.[2] Since that date other states have enacted similar statutes. Such legislation generally serves as a minimum allowance which can be amended upward by mutual agreement of the employing organization and its employees.

In addition to the annual sick leave allowance, most legislation sets the minimum number of sick leave days which must be allowed to accumulate. Here again this is generally only a minimum with additions being allowed by agreement of the parties involved.

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[1] Chrissie Bamber, Student and Teacher Absenteeism (ERIC ED 172 386), p. 15.

[2] A Program to Improve Teacher Attendance, Greater Newark Chamber of Commerce, New Jersey (ERIC ED 112 499), p. 10.

The development of collective bargaining has been the turning point in terms of increasing allowable sick leave accumulation and a more diversified utilization of this benefit.[1] It is not uncommon in the educational community to have institutions which grant unlimited sick leave accumulation.

In addition to various increases in sick leave benefits, leaves such as personal leave, emergency leave, bereavement leave, professional leave, association leave, etc., have become commonplace through organized negotiations. One would assume that sick leave utilization would decrease with the many varied leaves being available since it was believed that sick leave had been used previously for reasons now covered by these additional leaves. Research has shown this generalization to be untrue since the utilization of sick leave has continued to increase.[2]

An examination of the literature concerning leaves and their utilization generally speaks to the reasons for increased utilization, means of decreasing absences, costs of staff absences, and effects on student achievement. Few studies, however, reflect any awareness of the

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[1]Peggy G. Elliott and Donald C. Manlove, The Cost of Skyrocketing Teacher Absenteeism (ERIC EJ 169 792), pp. 269-70.

[2]P. Oliver Gibson and Paul LaFornara, Collective Legitimacy and Organizational Attachment: A Longitudinal Case Study of School Personnel Absences (ERIC ED 063 674), p. 18.

possibility that increased leave benefits may be directly related to increased utilization of the same benefits. One study states that this might be a possibility but gave no data in support of this proposition while another study suggested such research would be of great interest.[1] A California study during the 1950s indicated a reduction in total sick leave usage after school employees were granted unlimited sick leave accumulation.[2] The same study, however, showed a significant increase in sick leave usage by employees over 55 years of age upon implementation of such benefits.[3] The conflicting positions found in the literature appear to indicate further research is needed.

In those Iowa public school districts not having unlimited sick leave accumulation, it is generally found that requests for this benefit or at least an increase from their present accumulation level is of primary importance to employees during collective bargaining. A study relating to sick leave utilization in districts with varying accumulation levels should be of interest to employers and employees alike. If varying sick leave accumulation levels do not make a difference in utilization, then unlimited accumulation is in order. However, if the

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[1] Teacher Absenteeism. Professional Staff Absence Study (ERIC ED 166 816), p. 44.

[2] John William Stallings, "Sick Leave for Certified Public School Employees," Diss. Univ. of Southern California, 1958, p. 150.

[3] Ibid., p. 140.

opposite is true, employers may need to reassess their bargaining positions.

Rationale for the Study

The Code of Iowa, Chapter 279.40, details the minimum number of sick leave days to be granted annually to public school employees as well as stating the minimum number of days of unused sick leave that shall be allowed to accumulate.

These limits set minimums only and do not reflect the basis on which the law was developed. Is the number reasonable when considering the affect on employers as well as employees? Are these levels too low, too high, or at the appropriate level? Possibly the real question is, does there need to be a restriction of any type?

Importance of the Study

Teacher absences because of illness which are chargeable to sick leave is a cost item to a school district. The amount of sick leave allowed to accumulate is a satisfaction factor of importance to professional staff.[1] If increased allowable accumulation of sick days does not increase the cost to the school district through increased sick leave days used, then districts should allow such accumulations to increase. In reverse, if increased

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[1]Alfred P. Wilson and Edward L. Moon, Valuing Employee Benefits by Teachers of Small Schools (ERIC ED 070 561), p. 3.

accumulation levels of sick leave does increase district costs, accumulation levels should not be increased and in certain instances, unless restricted by state law, should be decreased.

The above statements are spoken to annually in Iowa public school districts participating in collective bargaining. This study attempted to determine which of the statements is correct and hopefully will serve as a guideline to future collective bargaining thought in the state of Iowa. In addition, based on the study's findings, legislative action may be a logical sequence.

To Whom Will the Study Have Meaning

Professional staff, administrators, and school board members as well as their respective local, state, and national organizations may be affected by the findings of this study. Exactly how each may be affected will be determined by their reaction to the findings of this study.

In addition, there is a possibility that legislative action to change existing laws dealing with sick leave accumulation may occur depending on the posture taken by any of the appropriate organizations in relation to the study's findings.

Statement of the Problem

The purpose of the study was to determine if there is a relationship between sick leave utilization by professional staff members in Iowa public school districts and the

number of sick leave days allowed to accumulate. The size of a school district and the average teacher's salary have long been singled out as factors affecting absenteeism.[1] Therefore, these two factors were used as covariates in this study.

Data utilized in this study for each variable was related to the 1982-83 academic year. The population was all Iowa public school districts who operated under a collective bargaining agreement during the 1982-83 academic year.

The questions to be answered were:

1. Is sick leave utilization by professional staff members in Iowa public school districts related to the number of sick leave days allowed to accumulate, size of the school district, and the average teacher's salary?

2. Is sick leave utilization by professional staff members in Iowa public school districts related to the number of sick leave days allowed to accumulate after controlling for size of the school district and the average teacher's salary?

Hypothesis of the Study

As a result of the questions to be answered by this study, the following hypothesis was made:

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[1] Teacher Absenteeism and Related Policies for Supplemental Remuneration (ERIC ED 062 274), p. 47.

After controlling for size of district and average teacher's salary, professional staff members in Iowa public school districts who are allowed to accumulate more sick leave days by a collective bargaining agreement, use more sick leave days.

Limitations

This study was limited to:

1. Iowa public school districts who operated under a collective bargaining agreement during the 1982-83 academic year.

2. Data relating to the 1982-83 academic year.

3. The independent variables of allowable sick leave accumulation, size of the school district, and the average teacher's salary.

4. The dependent variable, average sick leave used per teacher.

5. Absences charged to the individual professional staff member under the category, sick leave. No distinction was made as to the length of illness nor the nature of the illness.

Any generalization of this study's findings for purposes outside of the state of Iowa or for those Iowa public school districts not operating under a collective bargaining agreement should be carefully reviewed.

Definition of Terms

1. Accumulated Sick Leave - Unused sick leave which is allowed to be carried over from year to year until

reaching a maximum number unless the accumulation is unlimited.

2. Average Teacher's Salary - Total teachers' salaries divided by the number of teachers (full-time equivalency) for each Iowa school district as reported to the Iowa Department of Public Instruction.

3. Professional Staff - Those staff teaching at the elementary and/or secondary level in positions requiring certification by the Iowa Department of Public Instruction.

4. Sick Leave - Days granted to employees at full pay when it becomes necessary for the professional employee to be absent because of personal illness or injury.

5. Size of School District - Total district enrollment (K-12) certified on September 10, 1982, to the Iowa Department of Public Instruction.

6. Full-Time Equivalent (FTE) - A summation of all teaching positions within an organization or unit stated in numerical terms equal to full-time teaching positions.

7. Average Sick Leave Days Used Per Teacher - The total sick leave days used within an organization or unit divided by the full-time equivalent (FTE) of that same organization or unit.

Methodology

Instrumentation

The instrumentation for this study was a two-part process. Initially, data was gathered for each Iowa public

school district who operated under a collective bargaining agreement during the 1982-83 academic year as to the size of district, average teacher's salary, and number of teaching positions (FTE).

In the second part of the process, each Iowa public school district who operated under a collective bargaining agreement was requested to furnish data as to the number of sick leave days they allowed their professional staff to accumulate as well as the total number of sick leave days used by their professional staff during the 1982-83 academic year.

In an effort to maximize the return of necessary data from selected school districts, a superintendent or an administrator in each of Iowa's fifteen Area Education Agencies was enlisted to transmit and collect information request forms. Any school district not returning an information request form was sent a follow-up letter or was contacted via telephone.

Size of district and the average teacher's salary are continuous variables while number of sick leave days allowed to accumulate is a multichotomous variable. Therefore, a taxonomy was established for the latter variable after the data was collected.

Data, other than that secured directly from each school district, were derived from various surveys or reports compiled by the Iowa Department of Public Instruction, the Iowa Association of School Boards, the Iowa State

Education Association, and the Iowa Public Employment Relations Board.

Population

The population for this study was the 350 Iowa public school districts who operated under a collective bargaining agreement during the 1982-83 academic year.

Analysis of Data

Analysis of data was performed through the use of analysis of covariance. The dependent variable, average sick leave days used per teacher, was analyzed over five levels of the independent variable, sick leave days allowed to accumulate. Size of school district and average teacher's salary were covariates. Statistical significance was set at a probability of less than .05. High significance was attributed to a probability of less than .01.

Review of Literature

The review of literature is found in Chapter Two.

CHAPTER TWO

A Review Of Related Literature

Introduction

The importance of fringe benefits has become more significant to all occupations in today's society. Quite often fringe benefits offer advantages of equal importance to salary. Organizations have found that their employees' health, morale, competence, and effectiveness are influenced by fringe benefits. In addition, recruitment and retention of quality personnel appear to be adversely affected when fringe benefits are considered poor.[1]

Allen suggested that the fringe benefit movement has quietly transformed the concepts relating to employer-employee relationships by imposing new, social obligations upon the employing organization.[2]

As employers consider the inclusion of a particular benefit, it should be made on the same basis as any other business consideration. In a school district this consideration would be: Will the new benefit improve education?[3] When considering the addition of new or expanded fringe benefits, it

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[1]Frederick W. Hill and James W. Colmey, School Business Administration in the Smaller Community (Minneapolis: T. S. Denison, 1964), p. 16.

[2]Donna Allen, Fringe Benefits: Wages or Social Obligation? (Ithaca: Cornell Univ. Press, 1964), p. 4.

[3]Hill and Colmey, p. 271.

is well to note that once a benefit is granted it is not easily withdrawn regardless of whether the organization is union or nonunion.

Generally the public has favored the extension of fringe benefits as it has been the belief that such additions are not as inflationary as direct wage increases.[1] However, during the 1960s strong collective action by teachers in the United States to gain welfare benefits as well as significant roles in policy making may have altered the public's thinking.[2] Most school systems had not, until this time period, given serious consideration to providing a strong fringe benefit program to their employees. But as recruiting competition from private enterprise and other governmental units increased, reasonably comparable benefits packages became somewhat of a necessity in order to attain the services of quality individuals.[3]

Fringe benefits take various forms. The most common forms are retirement benefits, insurance benefits, and leave benefits. While retirement plans are the costliest

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[1]Allen, p. 264.

[2]T. M. Stinnett, "Reordering Goals and Roles," Phi Delta Kappan, 52 (Sept. 1970), p. 2.

[3]Leslie Allen Wilson, "A Study of the Cost of Providing Fringe Benefits to Professional Personnel of Selected School Districts," Diss. Teachers College, Columbia Univ., 1964, pp. 87-89.

of the benefits, Wilson suggests that sick leave might well be the most important teacher welfare benefit.[1]

According to Fearen paid sick leave serves three vital purposes:

1. To relieve any possible economic burden on a professional employee who is ill.

2. To protect school children from the necessity of being exposed to a teacher with an illness which might be communicated to them.

3. To alleviate the problem of teachers performing at low level of proficiency by reason of an incapacitating illness.[2]

There appears to be little uniformity among sick leave benefits for teachers throughout our nation.[3] This lack of uniformity may be a result of boards of education becoming more cognizant of their obligation to insure that public funds are neither wasted nor allocated indiscriminately as they formulate and periodically revise the leave policies for their professional employees.[4] Additionally, there are two very divergent views of the sick leave benefits. One view is that sick leave is a form of reward

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[1]Ibid., p. 86.

[2]William Fearen, "The Prostitution of Sick Leave--A Legal and Moral Issue," PSAS Bulletin, Nov.-Dec. 1972, p. 28.

[3]Jack H. Kleinmann, Fringe Benefits for Public School Personnel (New York: Bureau of Publications, Teachers College, Columbia Univ., 1962), p. 58.

[4]Jack Davis Sells, "A Causal-Comparative Study of Professional Employee Absenteeism and the Utilization of Sick Leave in Selected School Districts with Differing Sick Leave Policies," Diss. West Virginia Univ., 1979, p. 10.

given for service rendered to the school district and if unused the employee should be compensated in some manner for the unused portion. The second view suggests sick leave is a form of insurance provided by the district and is only available and usable when a teacher is incapacitated.[1]

This difference of concepts and variation in benefits does not appear to be a situation which will change easily. Sells suggested that sick leave policies should be based on research findings of studies specifically designed to evaluate the effect of various sick leave plans.[2] Personal opinion, unsupported logic, employee demands, and public opinion should not be the basis for leave policy decisions. The ramifications of proposed policy revisions must be studied carefully before any concessions or decisions are made.

The idea that most leave policies are based on conjecture and logic was supported by Marlin[3] and the findings of the Philadelphia Suburban School Study Council's research published in 1970.[4]

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[1]Blair Hayes Brewster, "A Study of Absentee Pattern and Utilization of Sick Leave by Teachers in Granite School District," Diss. Univ. of Utah, 1970, p. 2.

[2]Sells, p. 3.

[3]Howard Benjamin Marlin, "An Analysis of Absenteeism and Utilization of Sick Leave by Selected Full-Time Ten-Month Professional Personnel in a Semi-Rural School System," Diss. Univ. of Southern Mississippi, 1976, p. 1.

[4]Teacher Absenteeism and Related Policies, p. 2.

Provisions for sick leave policies take every conceivable form among school districts.[1] Kleinmann described the most common forms as follows:

Teachers share in cost of sick leave. The maximum number of days available is unlimited but the maximum cost to the district is fixed. Costs over and above the fixed amount would be shared on a prorated basis by those teachers who had been absent during the year.[2]

Unlimited sick leave at full salary. This policy allows a teacher to be absent an unlimited number of days while receiving full salary for each day missed.[3]

Limited sick leave at full salary. A set number of sick leave days allowed annually for which a teacher receives full salary for absences within the policy limits.[4]

Extended sick leave at partial salary. A plan where sick leave which exceeds the number of sick leave days allowed at full salary is paid for at part salary. Generally this part salary equals half salary or full salary less the cost of a substitute.[5]

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[1]B. U. Ratchford, "Recent Changes in Public Pay Policies," National Tax Journal, 25, No. 4 (Dec. 1972), 539.

[2]Kleinmann, p. 61.

[3]Ibid., p. 62.

[4]Ibid.

[5]Ibid., p. 63.

Cumulative sick leave plan. A system where the teacher is allowed a limited number of sick leave days at full salary each year plus any of the allowed days not used may be carried forward and added to the following year's allotment. The number of sick leave days an individual may accumulate may or may not have a stated maximum. This system is the most widely used system in American school systems today.[1] Districts permitting the cumulative sick leave plan increased from seven percent to ninety-two percent during the period of 1928 to 1966 in systems in cities with populations of 2,500 or more.[2] The popularity of this plan has continued especially in districts where accumulation limits are periodically increased.

Variations of the common sick leave plans are numerous. Probably one of the more common deviations today is a cumulative sick leave plan with a limited number of days allowed. Disability insurance is then provided which becomes effective once the employee has exhausted all sick leave days available. This plan was developed with the thought that such expanded benefits would lower absenteeism. A New Jersey study found, however, that those districts providing such income protection had the highest

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[1]Ibid., p. 64.

[2]Marsha A. Ream, "Sick Leave for Teachers," National Education Association Journal, 56 (Nov. 1967), 26-27.

rates of absenteeism within the state.[1] It appears that the direction of sick leave benefits today is toward alternatives that stress employee responsibility.[2]

If an analysis of sick leave benefits is to be successful, detailed data must be available. Without such data, generalizable conclusions cannot be drawn.[3] Many school systems keep limited attendance records. Even those with established attendance collection procedures seldom utilize the data as part of an analytical process.[4] The data that is presented is generally in descriptive form which leads to much misinterpretation, as each descriptive fact is time related and situationally limited. This lack of uniformity in available data has restricted research which would be very useful in determining the affects various sick leave plans have on teacher absenteeism.

In order to determine the true effect of sick leave benefits, districts must move away from looking at the rates of absenteeism to a system of identifying variables which may be predictors that can be used to solve the

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[1]Richard Harclerode, Teacher and Staff Attendance Improvement Programs: Attendance Improvement Guide for Superintendents. How to Improve Staff Illness Absence (ERIC ED 204 847), p. 2.

[2]Miriam Rothman, "Can Alternatives to Sick Pay Plans Reduce Absenteeism?" Personnel Journal, 60, No. 10 (Oct. 1981), 790.

[3]James H. Capitan, et al., Teacher Absenteeism. A Study of the Ohio Association of School Personnel Administrators (ERIC ED 185 699), p. 7.

[4]James Lewis, Jr., Do You Encourage Teacher Absenteeism? (ERIC EJ 253 786), p. 29.

problems of employee absenteeism.[1] The real problem in proceeding in such a direction appears to be the availability of data which will identify such predictors.

Trends in Absenteeism

Much has been written about recent increases in absenteeism among professional public school employees.[2] Bridges reported that approximately 3.75 percent of the total scheduled workdays of elementary and secondary teachers is lost through absenteeism.[3] In a 1981 American School Board Journal article, Lewis reported that approximately 75 million teacher/student contact hours were lost annually when teachers were absent from the classroom. The projected costs of this teacher absenteeism was nearly two billion dollars.[4]

These costs, both direct and indirect, are becoming so large that the public will soon become more aware of this important line item expenditure. Marlin asserts that little attempt has been made by school districts to curb these costs and in many instances school administrators do not recognize a problem exists.[5]

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[1]John Wayne Anderson, "A Descriptive and Predictive Study of Variables Related to Teacher Use of Sick Leave," Diss. Univ. of Kansas, 1977, p. 3.

[2]Sells, p. 350.

[3]Edwin M. Bridges, Job Satisfaction and Teacher Absenteeism (ERIC EJ 234 119), p. 41.

[4]Lewis, p. 29.

[5]Marlin, p. 30.

The problem is prevalent in private industry as well. In 1978 it was reported that the direct cost of lost but paid for labor exceeded over twenty-five billion dollars.[1] Such chronic nationwide absenteeism is one cause of the serious productivity gap our country is now experiencing.[2] A 1973 national survey conducted by the Bureau of National Affairs of some 200 organizations resulted in over 79 percent of the respondents listing absenteeism as their most serious problem.[3]

Reed suggests that absenteeism is a very contagious disease which if ignored gets worse and spreads to other employees.[4] However, organizations which have negotiated or provided sick leave benefit programs have to accept part of the blame for this increased absenteeism. Many of these programs are so liberal that they encourage absence from work.[5] Hayes concluded that individuals generally come to work on a regular basis only if it is to their advantage to do so.[6]

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[1]Capitan, p. 3.

[2]James L. Hayes, Absenteeism: The Death of Productivity (ERIC EJ 207 975), p. 20.

[3]John Baum, Effectiveness of an Attendance Control Policy in Reducing Chronic Absenteeism (ERIC EJ 184 353), p. 71.

[4]Ed Reed, How to Cut Excessive Absenteeism (ERIC EJ 247 058), p. 17.

[5]Richard I. Hartman and John J. Gibson, The Persistent Problem of Employee Absenteeism (ERIC EJ 039 181), p. 539.

[6]Hayes, p. 20.

Although absenteeism is a major problem in industry, it does not appear as great as in the public schools. A financial report recently released stated that Chicago public school teachers were absent nearly twice as often as industrial workers. The cost of these absences exceeded fifty-four million dollars to the Chicago district.[1] A 1974 report from the New York State Office of Education stated that almost 9 percent of the New York City school budget allocation for teacher salaries was spent for absence related expenses.[2] In New Jersey during approximately the same time period, teachers' short-term illnesses were reported to be nearly twice the rate as that in business and industry.[3]

The Department of Labor reported in 1976 that educational employees had a 3.6 percent absence rate. Such figures reflect that on any given day as many as 86,000 classrooms were supervised by someone other than the regular classroom teacher.[4] Even though it appears liberalization of sick leave benefits has resulted in increased absences, the National Education Association has continued supporting increased sick

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[1] Education USA, 20 June 1983, p. 334, col. 2.

[2] Teacher Absenteeism in New York City and the Cost-Effectiveness of Substitute Teachers, New York State Office of Education Performance Review (ERIC ED 085 868), p. 3.

[3] A Program To Improve, p. 44.

[4] Bamber, p. 16.

leave benefits as demonstrated by the resolution adopted at its 1982 national convention.[1]

Sick Leave Abuse

This increase in absenteeism, in many instances, has caused concern as to the possibilities of sick leave abuse. The belief that employees take leave for reasons other than illness for which they request sick leave benefit has become more prevalent in recent years. This belief as well as complaints of abuse from various factions has resulted in districts granting a variety of other leaves such as personal leave, family illness leave, etc., in an attempt to curtail any abuse which may have occurred. Such concessions in the absence of facts which would justify such action may be a detriment to our educational system.[2]

Campbell found in his study of governmental employees that two of the most common causes of sick leave abuse were:

1. Permissive sick leave policy. Employees were more likely to use their leave indiscriminately if the policy appeared to be permissive.

2. Supervisors who were lax in their own use of sick leave. Subordinates generally will follow the patterns set by their supervisors.[3]

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[1] "Resolutions," Today's Education, 71, No. 3 (1982), 170.

[2] T. M. Stinnett, Professional Problems of Teachers, 3rd ed. (New York: Macmillan, 1968), p. 253.

[3] Edward I. Campbell, "Sick Leave Abuse and What to Do About It: A Look at Governmental Employees," Personnel, 47 (Nov.-Dec. 1970), 48.

A similar result concerning supervisors was found in a study of government clerical workers in Minnesota by Weitzel and Bloedorn.[1]

In education little research has been completed which speaks to sick leave abuse. The inherent complexities of monitoring leaves make it extremely difficult to determine accurately the ramifications of the problem. Most opinions on sick leave abuse in education appear to be just that, opinion. An example of such opinion, which is not supported by a preponderance of research, is the belief that older teachers, should an unlimited accumulation plan be adopted, would abuse sick leave benefits as they near retirement. The basis for this thinking is that the teacher would use the sick leave rather than retire and receive no compensation for the days that had accumulated. To combat this perceived situation, some school districts have adopted a sick leave plan which provides payment for unused sick leave upon retirement. Until data is collected and properly analysed, sick leave abuse be it real or a figment of the imagination will probably continue to plague educational organizations as well as business and government agencies.[2]

Affect on Student Achievement

An additional concern found in the literature speaks to the affect teacher absenteeism has on student achievement.

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[1]William Weitzel and John Bloedorn, "Action Research in Work Groups," Personnel Administration, 33 (Sept.-Oct. 1970), 51-58.

[2]Marlin, p. 28.

Although there is disruption of the regular classroom environment when a teacher is absent, the major problem reported has to do with the quality of substitute teachers. A study conducted by Columbia University's Metropolitan School Study Council concluded that substitute teachers were educationally ineffective. In secondary classrooms the study found that the regular classroom teachers were twenty times more effective than substitutes. In addition, student teachers were found to be more effective in the classroom than were substitutes.[1]

There is speculation that districts are bargaining away pupil progress as sick leave allowances are increased through the negotiations process. Elliott and Manlove suggest one alternative to this situation may be to develop programs which would significantly enhance the effectiveness of substitute teachers.[2] Many district patrons, generally angered by the tremendous costs of substitutes, believe that most substitute teachers are nothing more than high-priced professional "babysitters."[3]

Cascioli recommended that districts not hire substitutes but in their place students should be shown films, be allowed to visit other classrooms or have them follow non-directive lesson plans. He felt that little education

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[1]Capitan, p. 1.

[2]Elliott and Manlove, p. 42.

[3]Sells, p. 107.

value was derived from having a substitute in the classroom, and the employment of substitutes siphoned off badly needed school funds.[1]

At what point does teacher absenteeism seriously affect student learning? One study of approximately 50,000 students and 2,000 teachers found the critical point to be 13.5 days. After a teacher was absent more than 13 days during a school year, student achievement suffered.[2]

It would seem obvious that teachers must be healthy if they are to provide the best educational services possible. The cost of sick leave programs may be more than justified when the health and welfare of the pupils as well as that of the teacher is considered. To the community, however, teacher absences sometimes represent a fiscal outlay which, if excessive, could be used for more thorough and efficient educational purposes.[3] The real problem in responding to such public reaction on the part of the public school is in determining if absences are necessary or if many could be avoided through implementation of various alternatives.

There is speculation that teacher absence may set a model for student absence. One might expect such a pattern because of disease or absences by teachers on particular days of the

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[1]A. R. Cascioli, "Curbing Sick Leave Expenditures," The Clearing House, 36 (Dec. 1961), 242.

[2]Lewis, p. 29.

[3]A Program to Improve, p. 47.

days of the week. Research has found, however, that student and teacher absences do not follow the same patterns.[1]

When a student is absent from school, only that particular student's progress is disrupted. When a teacher is absent from school, the entire class is affected. In addition, such teacher absences are believed to have a negative effect on the morale and effectiveness of other professional employees who may be dependent upon the absent teacher.[2]

Studies of Professional Employee Absenteeism

In an effort to identify variables relating to increased teacher absenteeism, several studies have been undertaken. Most of these studies have determined the frequency of absence within the various variables. A majority of the research was limited as to the number of school districts from which samples were drawn. This limited population appears to have restricted the generalizability of the findings. However, a review of these studies represents a basis on which an expanded study may be undertaken.

A variable considered in most studies was sex. Generally sex was considered in conjunction with the variable, teaching level. In most instances teaching level was divided into two categories, elementary and secondary.

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[1] Teacher Attendance Patterns. Technical Report No. 7 of a Study of School Calendars (ERIC ED 172 325), p. 1.

[2] Doris W. Bland, "A Study of the Absence of the Appointed Teachers of the Public School System of Philadelphia, Pennsylvania," Diss. Temple Univ., 1974, p. 4.

Overall, women were found to have more absences than men. Such findings have been consistent in studies conducted in the private sector as well as in the schools.[1]

Stallings in his study of California teachers in 1955-56 found the same pattern of absences. He also found that elementary teachers were absent more frequently than secondary teachers. These findings were based on the average number of days absent per individual teacher on an annual basis. In turn, female elementary teachers were found to have the highest annual absence rate.[2]

Similar results were found in several studies which considered either or both of these variables relative to sick leave usage. The single exception to such results was found by Anderson in his study of selected Kansas City, Missouri, schools. In his study he found there was not a significant difference between the mean absences of elementary and secondary teachers.[3]

One reason suggested by Anderson for findings that women teachers were absent more than their male counterparts was that women are accepted as being responsible for the care of their families. As a result, when a situation occurs which necessitates the attention of a parent, the woman is more likely to attend to such matters thereby resulting

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[1]Capitan, p. 7.

[2]Stallings, pp. 145-52.

[3]Anderson, p. 13.

in higher absence rates.[1] Anderson also suggests that higher rates of absenteeism among elementary teachers may be a result of their being exposed to more illnesses since younger students are more susceptible to disease.[2]

Teaching level and sex may be somewhat suspect as variables to be used in identifying causes for absenteeism. If a variable relating to absenteeism is uncontrollable for all practical purposes as in the known fact that a preponderance of elementary teachers are female or in the situation of elementary teachers being exposed to more student disease, it would appear that the identification of such variables should be gathered for descriptive purposes only.

Other variables studied which appeared to be very closely related were age, experience, educational background, and salary. Generally older teachers have more experience which results in higher salary since most salary schedules are based on seniority. In addition educational background increases proportionately with the other three variables.[3]

The findings of the various studies which selected age as a variable were mixed. A five year study of a Las Vegas, Nevada, school district during the late 1960s and early 1970s found no significant relationship between age and

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[1]Anderson, p. 13.

[2]Ibid.

[3]Ibid., p. 28.

absenteeism.[1] Similar results were reported by Manlove and Elliott.[2] A Newark, New Jersey, study concurred with their findings that age was not a contributing factor to absenteeism.[3]

Other studies such as the one in a Philadelphia school district covering a two-year period in the early 1970s found significant relationships between age and absenteeism.[4] Pitkoff reported a similar positive relationship and suggested the possible cause might be a result of health problems.[5]

Adding to these diverse findings was research which found significant relationships between age and absenteeism for certain age categories but no significant relationship within others. Sells found particularly high absenteeism rates within the 56-60 and 61-65 age groups.[6] In California's Chula Vista City School District, the 18-29 age bracket had a substantially higher absence rate while

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[1]Dorence L. Bundren, "The Influence of Situational and Demographic Factors on Absentee Patterns of Teachers," Diss. Univ. of Southern California, 1974, pp. 87-89.

[2]Donald C. Manlove and Peggy Elliott, Absent Teachers . . . Another Handicap for Students? (ERIC EJ 170 941), p. 48.

[3]A Program to Improve, p. 54.

[4]Bland, pp. 124-125.

[5]Evan Pitkoff, In Search of Ways to Reduce Unnecessary Teacher Absenteeism (ERIC ED 207 180), p. 3.

[6]Sells, p. 369.

teachers over 40 years of age had a remarkably low rate.[1] Nadler in his study of public school districts in New York's Nassau County found absences significant at lower ages but not for older ages.[2]

The variable age produced inconsistent results according to the current literature available. This may have been a result of most studies having a population drawn from a very limited geographic area.

The variable experience was not significantly related to absenteeism in any of the literature. Bland in her 1974 study of Philadelphia teachers found more experienced teachers used substantially less sick leave.[3] Brewster's findings in Nevada's Granite School District produced similar results.[4]

Educational background as a variable seemed to indicate that those teachers with more education tend to miss fewer days. However, in most instances the fewer days did not prove to be of significance. Sells reported that professional employees with a bachelor's degree used more sick leave than those professional employees with an advanced

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[1]Reed, p. 17.

[2]Charles D. Nadler, "A Comparison of Professional Staff Absences in Public School Districts in Nassau County, New York, with Policies of Limited and Unlimited Sick Leave," Diss. St. John's Univ., 1971, p. 115.

[3]Bland, pp. 124-125.

[4]Brewster, pp. 81-87.

degree.[1] Anderson derived corresponding results in his study of Kansas City teachers.[2] Bundren's research did not produce a consistant pattern among Las Vegas teachers.[3]

Salary as a predictor of absenteeism also produced mixed results. Blair found that those individuals within a district receiving higher salary used significantly less sick leave.[4] Such an outcome may indicate that as the salary level increases teachers become more satisfied which results in lower absenteeism. In those studies with opposite findings, it was suggested that in many cases a teacher's salary is a secondary source of family income and, as such, sick leave may be taken in the case of a personal problem or home duty.[5]

The majority of studies reviewed found no significant relationship between salary and sick leave usage. It may be important to note, however, that such findings were a result of research conducted for a small number of school districts within a limited geographic area. These limits may have affected the variance one would find with a larger population covering an extended geographic area since salaries tend to vary more as these two factors are increased.

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[1]Sells, p. 378.

[2]Anderson, pp. 33-34.

[3]Bundren, pp. 87-89.

[4]Brewster, pp. 81-87.

[5]Anderson, p. 13.

that size was not a significant variable affecting absenteeism.[1]

It was suggested that a reason smaller districts reported fewer absences was that the professional staff had more of a sense of belonging as well as knowing other professional staff on a much more personal basis.[2]

There appears to be conflicting results when comparing the findings for the variables salary and size of district. The literature indicated professional staff who received high salaries were absent less while reporting the smaller districts recorded fewer absences. If larger districts tend to pay higher salaries, as indicated by Triolo[3] and by those figures found in current surveys, it would seem the populations studied must be substantially different.

Sick leave policies established by local boards of education and state laws requiring sick leave minimum requirements vary widely in the United States. Early in this century a limited number of schools offered sick leave benefits to their staff but not until 1942 in New Jersey was a state law enacted which required all school districts within the state to provide such benefits.[4] Since that time various

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[1]James A. Heustess, "An Analysis of Elementary School Teacher Absences by Selected Assignment and Organizational Variables," Diss. George Peabody College, 1971, p. 3.

[2]Shoop, p. 194.

[3]Charles J. Triolo, "Fringe Benefits Provided Public School Teachers in Nassau and Suffolk Counties, Long Island, New York," Diss. St. John's Univ., 1968, pp. 171-73.

[4]A Program to Improve, p. 10.

studies have been conducted in an attempt to determine the affect various policies have on teacher absenteeism although these studies have generally not been completed in conjunction with the adoption phase of policymaking.

Collective bargaining has resulted in more generous sick leave provisions for teachers.[1] In Pennsylvania where collective bargaining began in 1961, the absenteeism rate among teachers more than doubled between 1961 and 1978.[2] A Nevada study found that the absence rate increased significantly following the enactment of collective bargaining legislation.[3] Manlove and Elliott stated:

> Extensive studies of the problem of teacher absenteeism have been completed in Merrick, N.Y.; Las Vegas; New York City; Chicago's north suburban schools; California; Illinois; and Indiana. The results in every study demonstrate a dramatic increase in teacher absenteeism. As additional days are made available to teachers through collective bargaining, it appears that more of those days are being taken by teachers and more teachers are taking those days![4]

Marlin found that teachers generally enjoyed slightly better physical health than the average person. However, statistics show teachers' use of sick leave is above average when compared with other occupations. He concluded such

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[1]Elliott and Manlove, p. 269.

[2]Teacher Absenteeism. Professional Staff, p. 37.

[3]Bundren, pp. 87-89.

[4]Manlove and Elliott, p. 1.

facts may account for the varying sick leave policies adopted by school boards.[1]

Boards of education have considered various options in an attempt to curtail absences while providing for the needs of their employees. Various plans have been proposed and in certain instances adopted, yet the number of sick days used by teachers has increased despite a decline in the overall number of teachers and students.[2]

There is little consistency within the literature as to a sick leave plan which maintains or lowers absenteeism rates while still meeting the needs of employees. What number of sick leave days should be granted annually, should unused days be allowed to accumulate, and should accumulation be allowed on a limited or unlimited basis are major questions which still need to be answered to the satisfaction of the policymakers.

Studies as early as 1939 have considered the granting of unlimited sick leave versus limited sick leave. The three districts studied who granted unlimited sick leave had substantially lower absence rates than did the eleven districts who had limited sick leave policies.[3] Nadler suggested that school districts allow unlimited sick leave accumulation for their employees on a trial basis. Detailed

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[1]Marlin, pp. 16-17.

[2]Pitkoff, p. 1.

[3]Willard S. Elsbree, The American Teacher (New York: American Book Co., 1939), p. 496.

data should be recorded to determine if the plan warrants final adoption.[1] The basis for this recommendation was his study of twelve school districts in Nassan County, New York. He found that districts studied having limited sick leave plans recorded 20 percent higher absenteeism than did districts with unlimited plans.[2] Wilson made a comparable recommendation after obtaining like results when considering absence rates in districts with unlimited sick leave plans.[3]

Sells found the opposite to be true in his study. His overall findings indicated a lower absenteeism rate among districts with limited sick leave plans. He further compared schools that were very similar in characteristics and found the same results.[4]

A Philadelphia area study found that districts granting the minimum sick leave benefits allowed by state law had the lowest absenteeism rates.[5] In New Jersey all urban districts surveyed, with one exception, who provided above the state required ten sick leave days per year had higher percentages of teacher absences per year than did those districts allowing the state minimum.[6]

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[1]Nadler, "A Comparison of Professional Staff," p. 120.

[2]Charles D. Nadler, "How to Cut Costs by Cutting Teacher Absenteeism," American School Board Journal, 159 (May 1972), 22.

[3]Wilson, p. 90.

[4]Sells, p. 368.

[5]Bamber, p. 23.

[6]A Program to Improve, pp. 96-97.

It appears the only plan which restricted the costs of sick leave was in Gary, Indiana. The Gary district sets a dollar limit which will be spent for sick leave. The teaching staff determines who receives sick leave benefits within the dollar limitations. Any money designated for sick leave which is left over at the end of the year is divided equally among the teachers.[1]

Recommendations From Studies

The most dominant recommendation found in the studies reviewed was the need for developing a model reporting system to be used at both the state and local levels.[2] Annually reports could be completed under such a system which would provide accurate data. Such data would enable patterns to be ascertained.[3]

Another recommendation found in three studies spoke to careful selection of employees in terms of sickness and absence histories. Careful examination of these histories with previous employers was thought to be a must.[4] It was stated that such a process was probably the most important aspect of controlling absenteeism.[5]

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[1]Pitkoff, p. 6.

[2]Sells, p. 398.

[3]Teacher Absenteeism and Related Policies, p. 65.

[4]Anderson, p. 38.

[5]Hartman and Gibson, p. 538.

Terminal pay was recommended as a reward to individuals who have been modest in their use of sick leave.[1] Such a plan is also a reward for services rendered plus it provides a limited amount of financial security.[2] A district may want to carefully consider the basis on which such pay is determined. Possibly years of service in addition to limited use of sick leave benefits would be a more reasonable method.[3]

Other recommendations were that credit toward a pension plan be granted for unused sick leave,[4] unused sick leave could be used toward early retirement, and teachers would be paid the substitute teacher rate for each unused sick leave day over a stated maximum.[5]

One recommendation was for the implementation of improved employee health services and on-the-job health practices.[6] Such a program would be questionable unless a true concern for the employees' health was conveyed. Any feelings on the part of employees that such a system was a means of "spying" on them would eliminate its usefulness.

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[1]Nadler, "A Comparison of Professional Staff," p. 122.

[2]Anderson, p. 11.

[3]Sells, p. 398.

[4]A Program to Improve, p. 48.

[5]Ken Gunter, "A Statistical Analysis of the Alabama Sick Leave Statute," Diss. Univ. of Alabama, 1980, p. 91.

[6]Sells, p. 118.

Probably the most interesting recommendation suggested was that twice each year a list of absences, tabulated by category, be distributed to all professional staff. The cooperation of each staff in holding absences to a reasonable figure should then be requested.[1]

Summary

The review of the literature relating to sick leave usage indicated a substantial concern among the educational community. From this review it appears that a rather limited amount of research has been completed during the last decade.

Although the research has been limited, it appears there is a consensus as to the variables which relate to absenteeism resulting from sickness and injury within school systems. Those are age, educational background, experience, salary, size of district, teaching level, and type of sick leave plan. However, according to the literature, the magnitude such variables have on absenteeism has not gained a similar consensus.

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[1]Nadler, "A Comparison of Professional Staff," p. 120.

CHAPTER THREE

Methodology

The purpose of this chapter is to delineate the process followed in conducting the study. Specifically, the population will be described as well as the procedures used for data collection and analysis.

Population

During the 1982-83 academic year, there were 441 public school districts in operation throughout the state of Iowa. Although all public school districts, according to state law, could have been involved in collective bargaining, only 350 school districts operated under a collective bargaining agreement during that year.

The 350 school districts who operated under a collective bargaining agreement during the 1982-83 academic year were selected as the population of this study. As stated in Chapter One, collective bargaining has been the turning point in terms of increasing allowable sick leave accumulation. Therefore, only those districts participating in this process were considered, as the main premise of this study was that increased sick leave accumulation resulted in greater sick leave usage.

A listing of those Iowa public school districts who operated under a collective bargaining agreement during the

1982-83 academic year was obtained from the Iowa Association of School Boards. This list was verified through a comparison with information published by the Iowa Public Employment Relations Board, the state's regulatory agency for public sector collective bargaining.

Data Collection

The following data was requested from each of the Iowa public school districts in the population:

1. Maximum number of sick leave days allowed to accumulate according to their 1982-83 master contract.
2. Total number of sick leave days utilized by their certified teaching staff during the 1982-83 academic year.

In an effort to maximize the return of requested data, one individual from within each of Iowa's fifteen area education agencies was contacted via telephone to request assistance in gathering the facts listed above from each of the area school districts. A follow-up letter (Appendix A) was sent to each person who had agreed to assist in collecting information reiterating the questions, which had been discussed during the initial telephone conversation, to be asked of each school district in the area. Attached to the followup letter was a data collection form (Appendix B) listing each school in the area with an appropriate space to record requested data. This method was employed since school district administrators are more likely to return

data pertaining to their district if someone personally known to them assists in the collection of information.

A timetable of approximately one month was established for the distribution and return of the data collection forms in each area of the state. Upon the return of the data collection forms, a list of those districts not furnishing the requested information was compiled. Each of these districts was then sent a follow-up letter (Appendix C) or in those districts where the superintendent was personally known contact was made via telephone in order to secure the needed information.

Additional data relating to the variables used in this study were gathered from various reports compiled by state agencies or from surveys taken by state associations as follows:

The variable, average sick leave days used per teacher, was determined by dividing the number of sick leave days used as reported by individual school districts by the number of certified professional staff (FTE). Each district's FTE for the 1982-83 academic year was obtained from a report furnished by the Management Information Division, Iowa Department of Public Instruction.

The variable, size of school district, was based on the certified student enrollment reported by each school district on September 10, 1982. As required by Iowa law, districts must submit enrollment figures to the Iowa Department of Public Instruction. Enrollment figures used in this

study to establish school district size were obtained from a report furnished by the Management Information Division, Iowa Department of Public Instruction. A verification of enrollment figures was made by comparing the report's enrollment data with those of the survey documents secured from the Iowa Association of School Boards and the Iowa State Education Association.

School districts were then divided into five categories according to their student enrollment. The categories were developed by analyzing a frequency distribution. Each category was as equal in number of districts as the distribution would allow.

The variable, average teacher's salary, was based on the certified teachers contract salary which each district reported on the 1982-83 Basic Educational Data Survey. Each school district must annually file this survey with the Iowa Department of Public Instruction. Average teachers salaries used in this study were obtained from a report furnished by the Management Information Division, Iowa Department of Public Instruction. A comparison of the average teachers salaries recorded in the report with figures contained in surveys available from the Iowa Association of School Boards and the Iowa State Education Association could not be made because of the difference in data requested on each organization's survey. Since the Iowa Department of Public Instruction's report rendered the average salary for teachers in each district, the report was used as the basis for the variable data.

Hypothsis

The following null hypothesis was tested: After controlling for size of district and average teacher's salary, professional staff members in Iowa public school districts who are allowed to accumulate more sick leave days by a collective bargaining agreement do not use more sick leave days.

Analysis of Data

The statistical procedure utilized to test the hypothesis of this study was analysis of covariance. The dependent variable was average number of sick leave days used per teacher. The independent variable was number of sick leave days allowed to accumulate by category. There were five categories of the independent variable. The covariates were average teacher's salary and size of district. The rejection level was set at a probability of less than .05 with a probability of less than .01 considered highly significant.

A correlation matrix of the major variables sick leave days allowed to accumulate, size of school district, average teacher's salary, and average sick leave days used per teacher was computed for the total population and for each area education agency.

Descriptive statistics were computed for sick leave days allowed to accumulate, size of school district, average teacher's salary, and average sick leave days used per teacher for the total population. In addition, like statistics were computed for each area education agency which

will allow for further interpretation for those interested in a particular geographic area.

The data were processed at Drake University's Dial Center for Computer Sciences on a Digital VAX 780/11. The Statistical Package for the Social Sciences (SPSSX) program was used for analysis and compilation.[1]

The analysis of data and supporting tables are presented in Chapter Four.

Summary

This chapter discussed procedures followed in the selection of the study's population, the methods used in the collection of data, an explanation of the variables, the hypothesis of the study, and the process utilized for the analysis of data.

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[1]SPSSX User's Guide (New York: McGraw-Hill, 1983), pp. 1-806.

CHAPTER FOUR

Analysis Of Data

Introduction

This study investigated the effect of the number of sick leave days allowed to accumulate in Iowa public school districts which operated under a collective bargaining agreement during the 1982-83 academic year with sick leave utilization by professional staff members while controlling for size of school district and average teacher's salary. The procedure utilized to test the hypothesis was analysis of covariance.

Additional statistical procedures utilized for analysis were frequency distributions, Pearson product moment correlations, means, standard deviations, and ranges.

During the 1982-83 academic year there were 350 Iowa public school districts which operated under a collective bargaining agreement. Data relating to the four variables analyzed in this study were gathered for 336 districts. The percentage of districts for which data were gathered was 96.0 percent. The population percentage represented in this study, listed by area education agency, is found in Table 1. This response was considered adequate since the total population was surveyed.

Variables

The variables included in this study were:

1. Sick leave days allowed to accumulate.

TABLE 1

Percentage of Iowa Public School Districts Operating Under a Collective Bargaining Agreement During The 1982-83 Academic Year for Which Data Were Gathered by Area Education Agency

Area Education Agency	Population	Number In Study	Percentage In Study
1	24	24	100.0
2	22	19	86.4
3	16	16	100.0
4	11	9	81.8
5	30	29	96.7
6	19	19	100.0
7	24	24	100.0
9	22	19	86.4
10	38	38	100.0
11	59	56	94.8
12	16	16	100.0
13	22	21	95.5
14	14	14	100.0
15	22	21	95.5
16	11	11	100.0
Total	350	336	96.0

NOTE: There is not an Area Education Agency 8.

2. Size of school district.

3. Average teacher's salary.

4. Average sick leave days used per teacher.

A frequency distribution for sick leave days allowed to accumulate by district was computed and is presented in Table 2. From this distribution five categories of sick leave days allowed to accumulate were developed for purposes of analysis. These categories are found in Table 3.

Data gathered from each school district giving the number of sick leave days used by their professional staff was divided by the district's number of full-time equivalent staff. The resulting figure was the average number of sick leave days used per teacher per district.

The calculated values for average sick leave days used per teacher along with the actual data gathered for size of school district and average teacher's salary were utilized in the analysis of covariance to test the hypothesis.

Descriptive Statistics

The mean, standard deviation, and range for each of the four main variables were computed.

The mean for sick leave days allowed to accumulate was 113.3 days with a standard deviation of 23.6 days. The minimum number of days allowed to accumulate was 90 (minimum required by Iowa law) while the maximum allowance was 200 days.

There were two districts allowing unlimited accumulation of sick leave days which were not included in this study. Clearer analysis was made possible by their exclusion.

TABLE 2

Frequency of Number of Sick Leave Days Allowed To Accumulate Among Iowa Public School Districts With Collective Bargaining Agreements During The 1982-83 Academic Year

Sick Leave Days Allowed	Frequency	Percentage
90	74	21.1
95	12	3.4
100	34	9.7
105	51	14.6
110	11	3.1
112	2	.6
115	8	2.3
120	92	26.3
125	3	.9
130	10	2.9
135	9	2.6
140	1	.3
145	3	.9
150	5	1.4
165	1	.3
180	9	2.6
185	1	.3
189	1	.3
190	5	1.4
193	1	.3
195	1	.3
200	2	.6
Missing	14	4.0
Total	350	100.0

The largest district in this study had 18,843 students as compared with 158 students in the smallest district. The mean size was 1,168.5 students and the standard deviation was 1,862.4.

Average teacher's salary reflected a mean of $17,717 with the highest average salary being $22,131 and the lowest remuneration averaging $12,548. The standard deviation for average salary was $1,905.

The range of average sick leave days used per teacher showed a minimum level of 0.9 days and a maximum level of 16.9 days. The mean absence rate was 5.1 days with a standard deviation of 2.2 days.

The figures stated above may be found in Table 4. Similar figures tabulated by area education agency for each of the four variables are found in Appendix D.

TABLE 3

Days of Sick Leave Allowed to Accumulate in Iowa Public School Districts with Collective Bargaining Agreements During the 1982-83 Academic Year by Categories

Category	Category Parameters By Number Of Days
1	90 but less than 100
2	100 but less than 110
3	110 but less than 120
4	120 but less than 130
5	130 and above

TABLE 4

Mean, Standard Deviation and Range of Sick Leave Days Allowed To Accumulate, Size of District, Average Teacher's Salary And Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements During the 1982-83 Academic Year (N = 336)

	Mean	Standard Deviation	Range Minimum	Range Maximum
Sick Leave Days Allowed To Accumulate	113.3	26.6	90	200
Size Of District	1,168.5	1,862.4	158	18,843
Average Teacher's Salary	$17,717	$1,905	$12,548	$22,131
Average Sick Leave Days Used Per Teacher	5.1	2.2	0.9	16.8

The descriptive statistics relating to this study produced a profile of the predominant level for each variable. The typical district would have approximately 1,169 students, would pay their teachers an average salary of $17,717 while allowing each teacher to accumulate 113 days of sick leave and their teaching staff would use slightly over five days sick leave per teacher per year.

Pearson Product Moment Correlations

Pearson product moment correlations were computed for each of the four main variables of this study. This

procedure determined the significance, the degree, and the direction of relationships among the variables. Such calculations are stated as a value of the correlation coefficient r.

The correlation matrix computed for the Pearson product moment correlations is found in Table 5.

TABLE 5

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts With Collective Bargaining Agreements For The 1982-83 Academic Year

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .41** n = 336		
Average Teacher's Salary	r = .38** n = 336	r = .56** n = 336	
Average Sick Leave Days Used Per Teacher	r = .09 n = 336	r = .20** n = 336	r = .10* n = 336

*p<.05
**p<.01

The number of respondent districts was 336. All correlation coefficients among the four main variables

were positive. Although the relationships found by computing the correlation coefficients fall in the low to moderate range, there were correlations among the three independent variables and between the independent variables, size of district and average teacher's salary, and the dependent variable, average sick leave days used per teacher. The only variables not relating were sick leave days allowed to accumulate and average sick leave days used per teacher.

Analysis of Covariance

An analysis of covariance was computed for average sick leave days used per teacher by categories of sick leave days allowed to accumulate while controlling for size of district and average teacher's salary. This procedure allows for the adjustments of means thereby eliminating any possible influence an unadjusted mean may have had on other variables. The results of this analysis are found in Table 6.

Test of Hypothesis

The null hypothesis tested was as follows: After controlling for size of district and average teacher's salary, professional staff members in Iowa public school districts who are allowed to accumulate more sick leave days by a collective bargaining agreement do not use more sick leave days.

The result of the analysis was failure to reject the null hypothesis. Sick leave days allowed to accumulate did

not affect average sick leave days used per teacher after controlling for size of district and average teacher's salary.

The only affect was that of the covariate, size of district, on the dependent variable, average sick leave days used per teacher.

TABLE 6

Analysis of Covariance of Average Sick Leave Days Used Per Teacher in Iowa Public School Districts for The 1982-83 Academic Year by Categories of Sick Leave Days Allowed to Accumulate While Controlling for Size of District And Average Teacher's Salary

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif. of F
Covariates	64.877	2	32.439	7.033	.001
Size	47.882	1	47.882	10.382	.001
Salary	.243	1	.243	.526	.819
Main Effects	2.436	4	.609	.132	.971
Allowed/ Categories	2.436	4	.609	.132	.971
Explained	67.314	6	11.219	2.432	.026
Residual	1517.280	329	4.612		
Total	1584.594	335	4.730		

Summary

This chapter provided information about the population, the variables, and the descriptive statistics. In addition, a Pearson product moment correlation was presented. Finally, the analysis of covariance was analyzed for the purpose of testing the null hypothesis. This analysis led to the retention of the hypothesis.

CHAPTER FIVE

Summary, Conclusions, Discussion, And Recommendations

This chapter contains a summary of the findings of this study as well as the conclusions, a discussion, and recommendations.

Summary

The purpose of this study was to determine if there was a relationship between the number of sick leave days professional staff members were allowed to accumulate in Iowa public school districts operating under a collective bargaining agreement during the 1982-83 academic year and the average number of sick leave days used per teacher. Further, size of district and average teacher's salary were used as covariates to determine their effect on the relationship. Analysis of covariance was used for this evaluation process.

This study was conducted for all Iowa public school districts who were actively involved in collective bargaining and who operated under a master contract during the 1982-83 academic year. There were a total of 441 public school districts operating during that year of which 350 met the criteria to be included in the study's population.

The mean, standard deviation, and range for each of the variables were presented. From these figures a profile was presented which indicated the typical district represented in this study.

Pearson product moment correlations were computed for each variable in relation to the others. When the variables were paired in this statistical procedure, a significant relationship was found between the variables average sick leave days used per teacher and average teacher's salary. Highly significant relationships were found between size of district and sick leave days allowed to accumulate; average teacher's salary and sick leave days allowed to accumulate; and size of school district and average teacher's salary. All other correlations produced were not significant at .05 level of confidence.

An analysis of covariance was used to test the null hypothesis of this study. The null hypothesis stated: After controlling for size of district and average teacher's salary, professional staff members in Iowa public school districts who are allowed to accumulate more sick leave days by a collective bargaining agreement do not use more sick leave days. This analysis computed an F ratio of .132 for categories of sick leave days allowed to accumulate. The probability of the F ratio was .971 which resulted in a failure to reject the null hypothesis.

The covariate, average teacher's salary, was found to have an F ratio of .526 which produced a probability of .819. Size of district, the second covariate, had the only highly significant F ratio of the analysis. Its F ratio was 10.382 and resulted in a probability of .001.

In summary, the analysis of covariance showed there was not a significant difference in sick leave usage among schools with varying sick leave accumulation levels nor was usage shown to be significantly affected by average teacher's salary. Size of district, however, did significantly affect sick leave usage. The smaller the district the fewer the average number of sick leave days used.

Conclusions

Three general conclusions were drawn from the findings of this study. They are:

1. In those Iowa public school districts operating under a collective bargaining agreement during the 1982-83 academic year which allowed a greater number of sick leave days to be accumulated by their professional staff, there was not increased utilization of sick leave benefits.

2. In those Iowa public school districts operating under a collective bargaining agreement during the 1982-83 academic year, there was no relationship between average teacher's salary and utilization of sick leave benefits.

3. In those Iowa public school districts operating under a collective bargaining agreement during the 1982-83 academic year, there was a relationship between utilization of sick leave benefits as the size of district increased. The larger the district the higher the average sick leave days utilized.

Based upon the forgoing conclusions, it is apparent that the number of sick leave days allowed to accumulate

does not affect sick leave utilization. Iowa school districts increasing sick leave accumulation levels should not consider such increases as a cost item. An attempt by various educational organizations to have legislation enacted which would increase the present state minimum sick leave accumulation level appears to be in order.

Discussion

During the process of completing this study, several observations were made which seem relevant to the general topics under consideration.

First, it became apparent that a reasonably comprehensive sick leave records management system within Iowa public school districts was almost nonexistent. Records such as sick leave used per teacher, remaining sick leave balance per teacher, annual sick leave used by a district, and average sick leave used per teacher were available but in many instances these items had to be compiled rather than being readily available. One district reported that such records were unavailable. This is not to say that all districts have limited records but it appears some may be overlooking a very important facet of their educational operation.

When reviewing teachers' salaries, the range found was nearly $10,000. The variance cannot be explained within the context of this study; however, such facts could result in a questioning of the state's financial equalization plan.

The Pearson product moment correlations indicate that the larger the district the greater the average teacher's

salary. Also, larger districts allowed greater accumulations of sick leave days. In turn, districts allowing greater accumulations of sick leave days have higher average teacher's salary. Are these findings a result of teachers in larger districts having more education, more experience, or some other factor?

The results of this study show a relationship between average number of sick leave days used per teacher and size of district. Does the teacher in the small district have more of a feeling of belonging, is the teacher better known and more closely watched, or is there some other reason affecting the teacher which results in this lower utilization of sick leave benefits?

The observations and questions listed above are examples of the thought and questions generated while completing this study.

Recommendations

After reviewing the data and results of this study, the following recommendations and suggestions are made:

1. It is recommended that this study be replicated for a different academic year in order to compare findings.

2. It is recommended that a similar study be conducted which eliminates sick leave usage for long term illnesses when computing average sick leave days used per teacher.

3. It is recommended that a study of similar form be conducted with different variables which may affect sick leave usage being used as independent variables and/or

covariates. Such variables as educational training, experience, marital status, and sex are suggested as possibilities.

4. It is recommended that a study be conducted to determine why teachers in smaller districts use fewer sick leave days.

5. It is recommended that a study be conducted to determine what affect long-term disability insurance provided by a school district for professional staff has on sick leave usage.

6. It is recommended that a study be conducted which will determine if sick leave usage is lower in districts who pay their professional staff for unused sick leave.

7. It is recommended that a systematic sick leave records management system be developed for Iowa public school districts. Information derived from such a system should be reported annually to the Iowa Department of Public Instruction where statewide research could be conducted relating to various aspects of sick leave usage.

8. It is recommended that a longitudinal study be conducted of selected school districts with a tradition of high sick leave usage and of selected school districts with a tradition of low sick leave usage which have substantially increased the number of sick leave days each allows their professional staff to accumulate to determine the affect such increase had on sick leave utilization. Such a study would also determine if tradition is a significant factor relating to sick leave usage.

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BIBLIOGRAPHY

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APPENDIXES

APPENDIX A

SAMPLE FORM LETTER. FOLLOW-UP TO INDIVIDUALS ASSISTING IN DATA COLLECTIONS

January 9, 1984

Dear

Thank you for agreeing to gather information from each of the school districts in your area for use in my dissertation. As I indicated to you on the phone, only information with regard to those schools who operated under a master contract during the 1982-83 academic year is needed.

Two figures are needed from each district. They are:

1. Maximum number of sick leave days allowed to accumulate according to their 1982-83 master contract.

2. Total number of sick leave days utilized by their certified teaching staff during the 1982-83 academic year.

For your convenience I have included a data collection form as well as a stamped, self-addressed envelope. Should you have any questions concerning this project, please call me collect at 515-347-5215.

Again, thank you for your willingness to assist me in this endeavor.

Sincerely,

Gerald L. Cowell

cnc

Enclosures

APPENDIX B

SAMPLE DATA COLLECTION FORM

DATA COLLECTION FORM
January, 1984
Area --

For 1982-83 Academic Year

District Name	Maximum No. of Sick Leave Days Allowed to Accumulate	No. of Sick Leave Days Used By Certified Teaching Staff
All schools in the area were listed in alphabetical order under this heading.	_____	_____

APPENDIX C

SAMPLE FORM LETTER. FOLLOW-UP TO SCHOOL DISTRICTS NOT RETURNING DATA AFTER INITIAL REQUEST

February 15, 1984

Dear Supt.

Recently I requested ---------, Superintendent at ------- Community School District, to collect two items of information from each school district in Area --. The information was (1) the maximum number of sick leave days a teacher was allowed to accumulate according to the district's 1982-83 master contract and (2) the total number of sick leave days used by the district's certified teaching staff, both full time and part time.

The data gathered will be used as a partial basis for my dissertation which is a study of those Iowa school districts who operated under a master contract during the 1982-83 academic year. Information gathered from the individual districts will be held strictly confidential.

In reviewing the results recently returned by ---- from Area --, I find the data from your district was not included. I know that this is a very busy time of the year for Iowa superintendents, but I hope you will be willing to compile the requested information for your district and forward it to me.

A stamped, self-addressed envelope and data collection form are enclosed for your convenience.

Your help will be greatly appreciated.

Sincerely,

Gerald L. Cowell

cnc

Enclosures 2

APPENDIX D

MEAN, STANDARD DEVIATION, AND RANGE OF VARIABLES BY AREA EDUCATION AGENCY

TABLE 7

Sick Leave Days Allowed to Accumulate in Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year By Area Education Agency

Area Education Agency	N	Mean	Standard Deviation	Range Minimum	Range Maximum
Total	336	113.3	23.6	90	200
AEA 1	24	121.0	23.7	90	185
AEA 2	19	110.5	21.0	90	180
AEA 3	16	114.1	15.3	90	150
AEA 4	9	112.8	12.0	95	130
AEA 5	29	105.8	19.7	90	190
AEA 6	19	115.8	30.2	90	200
AEA 7	24	116.7	24.6	90	180
AEA 9	19	129.6	23.8	90	193
AEA 10	38	118.5	30.3	90	190
AEA 11	56	106.2	18.7	90	180
AEA 12	16	109.1	14.4	90	145
AEA 13	21	115.7	31.0	90	200
AEA 14	14	102.1	13.5	90	120
AEA 15	21	109.4	13.4	90	135
AEA 16	11	121.4	36.0	90	190

TABLE 8

Size of Iowa Public School Districts With Collective Bargaining Agreements For The 1982-83 Academic Year By Area Education Agency

Area Education Agency	N	Mean	Standard Deviation	Range Minimum	Range Maximum
Total	336	1,168.5	1,862.4	158	18,843
AEA 1	24	1,418.4	2,035.0	352	10,509
AEA 2	19	889.5	1,078.3	197	4,777
AEA 3	16	698.7	625.3	158	2,218
AEA 4	9	613.0	212.6	336	878
AEA 5	29	743.8	935.6	201	5,057
AEA 6	19	952.1	1,202.9	229	5,424
AEA 7	24	1,509.5	2,737.3	315	13,474
AEA 9	19	1,558.6	1,655.8	243	5,841
AEA 10	38	1,548.1	3,184.8	209	18,843
AEA 11	56	1,093.3	1,081.8	214	5,803
AEA 12	16	1,593.7	3,231.0	322	13,567
AEA 13	21	1,247.3	2,158.6	303	10,298
AEA 14	14	721.4	489.9	214	1,840
AEA 15	21	916.0	694.1	202	2,535
AEA 16	11	1,673.4	1,680.2	397	5,952

TABLE 9

Average Teacher's Salary in Iowa Public School Districts with Collective Bargaining Agreements for 1982-83 Academic Year by Area Education Agency

Area Education Agency	N	Mean	Standard Deviation	Range Minimum	Range Maximum
Total	336	$17,717	$1,905	$12,548	$22,131
AEA 1	24	18,797	1,299	15,602	21,740
AEA 2	19	17,575	2,315	13,762	21,839
AEA 3	16	17,289	2,386	14,115	21,008
AEA 4	9	17,509	949	16,098	18,618
AEA 5	29	17,213	2,148	13,320	21,656
AEA 6	19	17,362	1,706	14,288	22,131
AEA 7	24	18,473	1,577	15,650	22,010
AEA 9	19	18,951	2,022	15,494	21,995
AEA 10	38	17,873	1,654	14,179	22,016
AEA 11	56	17,751	1,734	14,190	22,097
AEA 12	16	17,212	1,840	15,027	21,791
AEA 13	21	17,138	1,884	14,807	20,937
AEA 14	14	16,332	1,717	13,015	19,461
AEA 15	21	16,928	1,768	12,548	19,945
AEA 16	11	18,969	1,792	15,479	22,003

TABLE 10

Average Sick Leave Days Used Per Teacher in Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year by Area Education Agency

Area Education Agency	N	Mean	Standard Deviation	Range Minimum	Range Maximum
Total	336	5.1	2.2	.9	16.8
AEA 1	24	5.6	2.3	2.1	12.0
AEA 2	19	4.7	1.9	2.0	8.6
AEA 3	16	3.9	2.4	1.1	10.6
AEA 4	9	3.3	1.9	1.1	7.2
AEA 5	29	4.3	1.5	1.8	7.8
AEA 6	19	5.0	2.3	2.3	10.6
AEA 7	24	5.4	1.9	2.2	9.0
AEA 9	19	4.9	1.5	1.8	7.4
AEA 10	38	5.4	1.9	2.5	11.0
AEA 11	56	5.5	2.0	1.3	11.3
AEA 12	16	4.9	2.2	2.1	9.7
AEA 13	21	5.1	1.6	1.9	8.5
AEA 14	14	5.9	2.2	1.8	10.4
AEA 15	21	4.8	3.3	.9	16.8
AEA 16	11	6.2	3.2	2.4	14.6

APPENDIX E

PEARSON PRODUCT MOMENT CORRELATIONS BY AREA EDUCATION AGENCY

TABLE 11

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 1

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .29 n = 24		
Average Teacher's Salary	r = .28 n = 24	r = .65** n = 24	
Average Sick Leave Days Used Per Teacher	r = -.05 n = 24	r = .10 n = 24	r = .003 n = 24

**p<.01

TABLE 12

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 2

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .28 n = 19		
Average Teacher's Salary	r = .03 n = 19	r = .74** n = 19	
Average Sick Leave Days Used Per Teacher	r = .63** n = 19	r = .21 n = 19	r = -.04 n = 19

**p<.01

TABLE 13

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 3

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .48* n = 16		
Average Teacher's Salary	r = .31 n = 16	r = .85** n = 16	
Average Sick Leave Days Used Per Teacher	r = .04 n = 16	r = .19 n = 16	r = .06 n = 16

*p<.05
**p<.01

TABLE 14

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 4

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .00 n = 9		
Average Teacher's Salary	r = .10 n = 9	r = .84** n = 9	
Average Sick Leave Days Used Per Teacher	r = .01 n = 9	r = -.02 n = 9	r = -.21 n = 9

**p<.01

TABLE 15

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 5

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .17 n = 29		
Average Teacher's Salary	r = .34* n = 29	r = .60** n = 29	
Average Sick Leave Days Used Per Teacher	r = .08 n = 29	r = .26 n = 29	r = .31 n = 29

*p<.05
**p<.01

TABLE 16

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 6

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .80** n = 19		
Average Teacher's Salary	r = .65** n = 19	r = .83** n = 19	
Average Sick Leave Days Used Per Teacher	r = .12 n = 19	r = .23 n = 19	r = -.19 n = 19

**p<.01

TABLE 17

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 7

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .34 n = 24		
Average Teacher's Salary	r = .03 n = 24	r = .56** n = 24	
Average Sick Leave Days Used Per Teacher	r = -.03 n = 24	r = .36* n = 24	r = .37* n = 24

*p<.05
**p<.01

TABLE 18

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 9

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .19 n = 19		
Average Teacher's Salary	r = .46* n = 19	r = .77** n = 19	
Average Sick Leave Days Used Per Teacher	r = .33 n = 19	r = .50* n = 19	r = .49* n = 19

*p<.05
**p<.01

TABLE 19

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 10

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .41** n = 38		
Average Teacher's Salary	r = .51** n = 38	r = .65** n = 38	
Average Sick Leave Days Used Per Teacher	r = .14 n = 38	r = .18 n = 38	r = .01 n = 38

**p<.01

TABLE 20

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 11

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .35** n = 56		
Average Teacher's Salary	r = .46** n = 56	r = .77** n = 56	
Average Sick Leave Days Used Per Teacher	r = .30* n = 56	r = .16 n = 56	r = .21 n = 56

*p<.05
**p<.01

TABLE 21

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 12

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .68** n = 16		
Average Teacher's Salary	r = .52* n = 16	r = .76** n = 16	
Average Sick Leave Days Used Per Teacher	r = .16 n = 16	r = .39 n = 16	r = .22 n = 16

*p<.05
**p<.01

TABLE 22

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 13

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .61** n = 21		
Average Teacher's Salary	r = .13 n = 21	r = .41* n = 21	
Average Sick Leave Days Used Per Teacher	r = .28 n = 21	r = .45* n = 21	r = -.04 n = 21

*p<.05
**p<.01

TABLE 23

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 14

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .18 n = 14		
Average Teacher's Salary	r = .29 n = 14	r = .81** n = 14	
Average Sick Leave Days Used Per Teacher	r = -.53* n = 14	r = -.15 n = 14	r = -.23 n = 14

*p<.05
**p<.01

TABLE 24

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 15

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .39* n = 21		
Average Teacher's Salary	r = .26 n = 21	r = .76** n = 21	
Average Sick Leave Days Used Per Teacher	r = .18 n = 21	r = .00 n = 21	r = -.11 n = 21

*p<.05
**p<.01

TABLE 25

Pearson Product Moment Correlations for Sick Leave Days Allowed to Accumulate, Size of District, Average Teacher's Salary and Average Sick Leave Days Used Per Teacher for Iowa Public School Districts with Collective Bargaining Agreements for the 1982-83 Academic Year in Area Education Agency 16

	Sick Leave Days Allowed to Accumulate	Size of District	Average Teacher's Salary
Size of District	r = .79** n = 11		
Average Teacher's Salary	r = .82** n = 11	r = .83** n = 11	
Average Sick Leave Days Used Per Teacher	r = -.09 n = 11	r = -.07 n = 11	r = .02 n = 11

**p<.01

Larger populations were found in studies considering organization size as a variable in relation to absenteeism. It was generally found that the larger the school district the greater the annual absence rate.[1] A Pennsylvania study conducted by that state's school board association found that size of district was directly correlated to absenteeism with smaller districts having fewer absences.[2] Shoop also reported that the average number of days absent per professional employee tended to vary directly with the size of the school district.[3] Pitkoff also stated that work units have lower absenteeism.[4]

In a report on teacher absenteeism in Ohio it was concluded that size of district was directly related to absences.[5] In another Pennsylvania study of school districts with varying numbers of professional staff, it was found that districts with fewer than 200 staff had fewer total absences when compared with those districts with 200 staff and over.[6] Heustess was the only researcher to report

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[1]Arthur Russell Shoop, "A Study of Absenteeism Among Regular Professional Employees of Public School Systems in the County of Dauphin, Commonwealth of Pennsylvania," Diss. Temple Univ., 1965, p. 194.

[2]Teacher Absenteeism. Professional Staff, p. 22.

[3]Shoop, pp. 187-196.

[4]Pitkoff, p. 3.

[5]Capitan, p. 4.

[6]Teacher Absenteeism and Related Policies, p. 48.